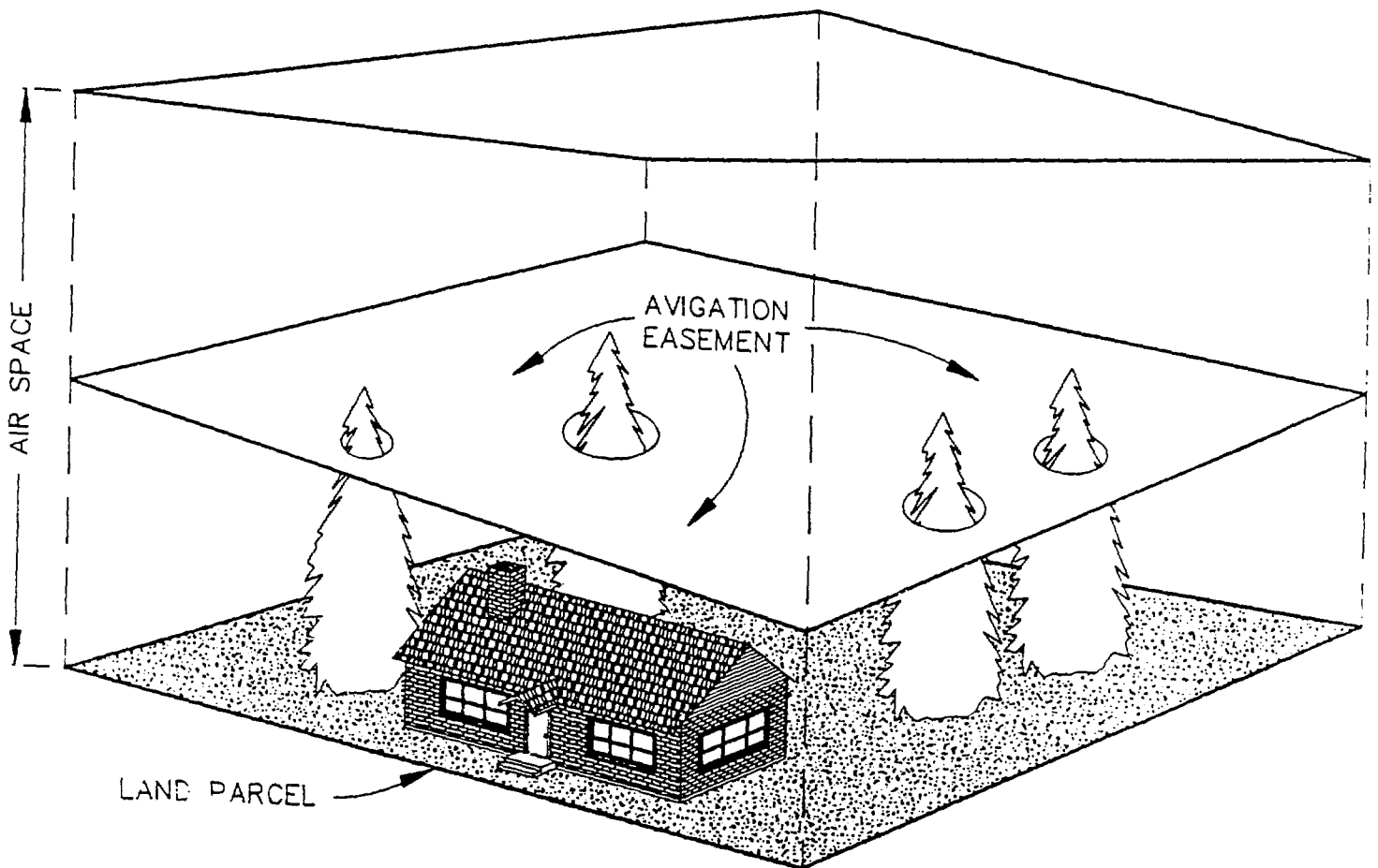


AVIGATION EASEMENTS GUIDE

GUIDELINES FOR SECURING



AVIGATION EASEMENTS

GUIDELINES FOR SECURING AVIGATION EASEMENTS

INTRODUCTION

The Airport and Airway Improvement Act of 1982 (P.L. 97-248, as amended) and Federal Aviation Administration (FAA) policies and procedures require that when funds are allocated for developing new runways, runway safety areas, or to improve existing runways, the sponsor must own, acquire, or agree to acquire an adequate property interest in the runway protection zones (RPZ).

In addition, the sponsor, through the assurances to the grant agreement, is expected to control all necessary airspace for the protection of the approaches to the airport and, where feasible, the associated transitional surfaces.

Furthermore, the sponsor must remove any structures or activities located within the object free area (OFA), located along the runway and extending into the RPZ, necessitating a land interest tantamount to fee to permit adequate sponsor control. Therefore, a fee interest in the OFA is expected to be acquired by the sponsor. Any exceptions must be approved by the FAA and will be considered only on a case-by-case basis supported by a full statement from the sponsor showing that a fee interest is uneconomical or unnecessary and that safety is not compromised.

Acquisition beyond the standard dimensions of the OFA (AC 150/5300-13), to at least the dimensions of the RPZ, is encouraged.

These instructions and guides are for the use of airport sponsors where it is considered feasible to secure less than fee title to the runway protection zone or areas underlying the approach and transitional surfaces.

The FAA strongly urges the acquisition of fee title to land within the runway protection zone and the areas underlying the approach and transitional surfaces within the permitted participation limits indicated below. However, where because of existing compatible land use, appropriate local zoning control, or factors not conducive to fee acquisition,

with the concurrence of the FAA, on a case-by-case basis, the securing of a properly developed easement may satisfy the sponsor's obligation to acquire or secure the necessary property interest in these areas.

ELIGIBLE PARTICIPATION LIMITS

(Source: A/C 150/5300-13 and Order 5100.38A)

Giving consideration to ownership lines and natural or manmade physical features, eligible approach and transitional land areas, in addition to the RPZ and OFA, are those areas where it is necessary to restrict the use of land to activities and purposes compatible with airport operations as well as to meet current and anticipated airport development. Such eligible areas may include:

(a) For runways serving or anticipated to serve turbojet aircraft or having an existing precision instrument runway, areas of land up to 1,250 feet laterally from the runway centerline and extending 5,000 feet beyond each end of the runway surface.

(b) On existing or planned nonprecision instrument runways, areas of land up to 750 feet laterally from the runway centerline and extending 3,400 feet beyond each end of the runway surface.

(c) For an existing or planned visual runway, areas of land up to 500 feet laterally from the runway centerline and extending 2,000 feet beyond each end of the runway surface.

Limitation. While land acquired within the above limits is considered ELIGIBLE for funding, there is no obligation to acquire any land interest in excess of the runway protection zone and object free area requirements.

The acquisition of the required land interests, either fee or easement, shall be accomplished under the provisions of the Uniform Relocation Assistance and Real

Property Acquisition Policies Act of 1970 (as amended) and implemented by DOT Regulation Part 24.

All airport development carried out with federal financial assistance must be done in accordance with an FAA approved airport layout plan (ALP). The approved ALP for a particular airport will delineate the existing and proposed design standards and approach categories to be applied.

TERMINOLOGY

The following terms concerning easements, airport definitions and imaginary surfaces must be understood to develop a proper easement document:

Avigation Easement: An avigation easement is a nonpossessing property interest in airspace over a land parcel or portion of land. It is a legally developed document obtained by an airport to transfer certain airspace rights to the airport covering items such as the right of flight, right to remove obstructions, etc., but not necessarily to the extent of prohibiting the use of the land within the limits of the rights obtained.

Clearance Easement: A clearance easement is a right obtained to provide for removal of obstructions in airspace above the imaginary surfaces of a parcel of land and the right to keep the airspace clear of obstructions, together with the right to enter the land parcel to accomplish the clearing.

Runway Protection Zone: A runway protection zone (RPZ) is trapezoidal in shape and centered about the extended runway centerline. The RPZ is the land at ground level that begins 200 feet beyond the end of each runway. The extent of the RPZ dimensions will vary according to the airport design standards and aircraft approach categories at the airport. Refer to AC 150/5300-13, Table 2-5 for specific dimensions.

Object Free Area: The object free area (OFA) is a two dimensional ground area surrounding runways, taxiways and taxilanes which is clear of all objects except those whose location is fixed by function and excepted by the FAA. The object free area

dimensions will vary according to the airport design standards and aircraft approach categories for the airport. Refer to AC 150/5300, Tables 3-1, 3-2, 3-3 and 4-1 for specific dimensions.

Runway Safety Area: A defined surface area surrounding the runway prepared or suitable for reducing the risk of damage to airplanes. The dimensions of the safety area will vary according to the airport design standards. Refer to AC 150/5300, Tables 3-1 to 3-3.

Primary Surface: A Part 77 airport longitudinally centered on a runway. The primary surface ends at the end of an unpaved runway; but when the runway is paved, the primary surface extends 200 feet beyond the paved surface end.

Approach Surface: A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end. Refer to the ALP for the airport to determine the approach surfaces and slope for the runway.

Transitional Surfaces: The transitional surfaces are located on both sides of the approach and primary surfaces. These surfaces extend outward and upward at right angles to the runway centerline and runway centerline extended, at a slope of 7 feet horizontal for every 1 foot vertical rise from the sides of the primary and approach surfaces, until it reaches 150 feet above the highest point on any runway (airport elevation).

Horizontal and Conical Surfaces: These are the upper aeronautical surfaces surrounding an airport that are used by aircraft for turning and maneuvering in close proximity to the airport preceding landing and immediately after takeoff. These surfaces are usually protected by zoning ordinances and are not generally obtained through aviation easements.

It is FAA policy that fee or easement acquisitions of runway protection zones also provide for acquisition of the triangular shaped flare area located on each side of the runway protection zone configuration immediately adjacent to the inner approach. The acquisition of these areas should be made when practicable or when the possibility of future obstructions exist and protection is necessary. These small parcels are within the transitional area and when acquisition is by easement, they are to be protected by a 7:1 slope at least up to a limit which provides a 50-foot terrain clearance. It is highly recommended that the acquisition of these imaginary surfaces be extended to the limit of the property being acquired, within reason, or to the extent of the transitional zone, whichever occurs first.

The dimensional characteristics of the imaginary surfaces defined in Federal Aviation Regulation (FAR) Part 77 and the accompanying runway protection zone and object free area are depicted on Exhibit C. this should be used as a guide in conjunction with the FAA approved airport layout plan (ALP).

RIGHTS TO BE ACQUIRED

The sponsor is obligated to decide exactly what rights should be obtained for the particular airport involved following consultation with the FAA. The decision will vary with the circumstances, the property needed, the type of property involved and potential uses for the property. The attached chart (Exhibit D) briefly outlines the variations in the types of easement estates.

The attached Model Avigation and Hazard Easement (Exhibit E) is considered the minimum necessary. Any deviations from these minimums must be approved by the FAA. It is mandatory that rights be obtained to provide for the right to remove existing obstructions, provide protection against future obstructions, together with the right to enter the land to enforce the provisions.

Right of Flight: In the approach surface and runway protection zone it is required that the easement contain the "right of flight". Outside of the approach pattern, generally all that would be needed would be a clearance easement to protect the airport from encroachment by obstructions. However, in some instances landowners have brought

suits against airports to recover damages for overflights. Obviously, if the easement contains provision for flight, the potential for future damages is reduced and consequently increase in cost to the airport is avoided as much as possible. In a letter to FAA General Counsel from the Assistant Attorney General, Department of Justice, it was stated:

"where low and frequent overflights are to be made, we are convinced that the public interest would be better served by the fee acquisition of the properties. By doing so, the airport owner will obtain land which will be available for multiple purposes, rather than mere airspace of no value except for aircraft flights and unsalable if an airbase is abandoned or if technical developments reduce or eliminate noise damage to the properties. Such practice also would give to the owner the full value for his property and eliminate the vexations due to the proximity of flight patterns. Another problem which should be kept in mind is the fact that easements for the flight of one type of airplane, for example, propeller aircraft, may not necessarily be held to be broadly enough described to embrace the flight of much noisier and lower flying aircraft, i.e., jet planes. Hence, it is desirable, in acquiring easements, to describe them to the broadest possible terms."

In this regard, it is suggested that the following be used:

"Aircraft shall mean any and all types of aircraft, whether now in existence or hereafter manufactured and developed, and shall include, but is not limited to, jet aircraft, propeller driven aircraft, civil aircraft, military aircraft, commercial aircraft, helicopters and all types of aircraft or vehicles now in existence or thereafter developed, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air".

Therefore, when circumstances are such and conditions permit, where overflights are involved, the easement would be expected to include " The right of flight." Other conditions such as noise, vibrations, fumes, dust, fuel particles and all other effects that may be caused as a result of flight in the airspace above the land should also be

included. At airports where instrument approaches exist or are planned, restrictions concerning radio interference are highly desirable.

In furtherance of the objective to provide protection of land areas near the airport to effect a harmonious and compatible use with normal airport operations, it may be desirable to include any or all of the provisions below as appropriate in the easement estate to be obtained. Compatible lands use generally may include agriculture, playgrounds and parks (types which do not generate assemblies), automobile parking, light industrial businesses (types which do not create smoke or electronic interference), and similar uses. Such restrictions may include but are not limited to:

1. Right to restrict land uses which might create glare and misleading lights or lead to the construction of residences, fuel handling and storage facilities, smoke generating activities and places of public assembly. Churches, schools, office buildings, shopping centers and stadiums typify places of public assembly.
2. Right to restrict or prohibit radio or electromagnetic interference.
3. Right to restrict or prohibit construction of certain types of buildings or structures, without prior approval of the airport owner.
4. Right to restrict or prohibit lights, lighted signs, and other lighted objects.
5. Right to restrict or prohibit the transfer, for other uses, of buildings or structures permitted to remain in-place.
6. Right to restrict or prohibit hazardous or unreasonably objectionable smoke, fumes, dust or vapor.
7. Right to restrict or prohibit the use of the land areas for any other purpose to any person other than the owner by lease, easement or otherwise without the consent of the airport owner.
8. Right to control the maintenance of any structure, including temporary interference with any of the acquired surfaces.

It is desirable to clear all objects from the RPZ. However, most agricultural uses may generally be permitted, provided they do not attract birds or otherwise interfere with aircraft operations. Golf courses can be acceptable outside the OFA. Automobile

parking should be discouraged but may be permitted provided it is located outside the OFA extended and below the approach surface.

Clearance Assessment for Obstructions: To provide for protection against present and future obstructions above the airport imaginary surfaces, the clearance easement provision must include:

1. The right to remove existing obstructions, natural or manmade, which penetrate the approach and transitional surfaces. Where trees and other natural vegetation are to be topped rather than removed to ground level, the easement estate should include the right to cut or top to 10 feet below the surface slope;
2. The right to restrict the establishment of future obstructions either natural or manmade, to the approach and transitional surfaces; and,
3. The right of ingress to and egress from the underlying land to enforce and maintain the area against obstructions to the approach and transitional surfaces.

EASEMENT DOCUMENT

The easement document utilized by the sponsor must meet the requirements of local statutes and local ordinances and may need to be in a particular form to meet other local requirements. The attached Model Easement (Exhibit D), containing the minimum restrictions considered necessary for proper control of airspace, may be used as a guide. It is suggested that the Model Easement format be utilized and adapted to fit the particular case keeping in mind the guidelines provided above.

Any change from the model easement must be approved by the FAA.

ACQUISITION OF PROPERTY INTERESTS OTHER THAN FEE		
TYPE	RIGHTS ACQUIRED	LENGTH OF TERM
Model Avigation and Hazard Easement	1-Right-of-flight at any altitude above approach or other surfaces (20:1, 34:1, 50:1) 2-Prohibit any obstruction above approach or other surfaces 3-Right to cause noise, fumes dust, vibrations and fuel particles 4-Prohibit creation of electrical interference or unusual lighting 5-Grants right-of-entry to remove or light trees, buildings and nay other objects to enforce rights granted	Until airport is abandoned
Limited Aviation Easement	1-Right-of-flight at any altitude above approach or other surfaces (20:1, 34:1, 50:1) 2-Prohibit any obstruction above approach or other surfaces 3-Grants right-of-entry to remove or light trees, buildings and any other objects above approach or other surfaces	Until airport is abandoned
Clearance Easement	1-Prohibits any structures, growths or obstructions above approach or other surfaces (20:1, 34:1, 50:1) 2-Grants right-of-entry to remove or light any trees, buildings and any other objects above approach or other surfaces	Until airport is abandoned

MODEL AVIGATION AND HAZARD EASEMENT

WHEREAS, (full name of property owner(s)), hereinafter called the Grantors, are the owners in fee of that certain parcel of land situated _____ in the City of, County of _____, State of _____, more particularly described as follows:

(FULL DESCRIPTION OF PROPERTY TO BE COVERED BY EASEMENT)

hereinafter called "Grantors' property", and outlined on the attached map (Exhibit 1);

NOW, THEREFORE, in consideration of the sum of dollars (\$_____) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Grantors, for themselves, their heirs, administrators, executors, successors and assigns, do hereby grant, bargain, sell, and convey unto (owner and operator of airport, i.e., City of _____), hereinafter called the Grantee, its successors and assigns, for the use and benefit of the public, as easement and right-of-way, appurtenant to (full name of airport) for the unobstructed use and passage of all types of aircraft (as hereinafter defined);

- In and through the air space above Grantors' property above an imaginary plane rising and extending in a generally (i.e., Easterly, Westerly, Northerly, and Southerly) direction over Grantors' property, said imaginary plane running from approximately (i.e., 25) feet Mean Sea Level (MSL) above Point A on Exhibit I at the rate of one foot vertically for each (i.e. 50) feet horizontally to approximately (i.e., 55) feet Mean Sea Level above Point B on Exhibit I, to an infinite height above said imaginary plane, (OR USE THE FOLLOWING)
- In and through the air space above Grantors' property above a Mean Sea Level of (i.e., 150) feet, to an infinite height above said Mean Seal level of (i.e., 150) feet, (OR USE FOLLOWING)
- In and through the air space above Grantors' property above a Mean Sea Level of (i.e., 150) feet, to an infinite height above said Mean Seal level of (i.e., 150) feet, (OR USE FOLLOWING)

- In and through all air space above the surface of Grantors' property, to an infinite height above said Grantors' property, as well as in the vicinity of the Grantors' property, with such use and passage to be unlimited as to frequency, type of aircraft and proximity.

Said easement shall be appurtenant to and for the benefit of the real property now known as (name of airport) including any additions thereto wherever located, hereafter made by (name of airport owner) or its successors and assigns, guests, and invites, including any and all persons, firms, or corporations operating aircraft to or from the airport.

Said easement and burden, together with all things which may be alleged to be incident to or resulting from the use and enjoyment of said easement, including, but not limited to the right to cause in all air space above or in the vicinity of the surface of Grantors' property such noise, vibrations, fume, deposits of dust or other particulate matter, fuel particles (which are incidental to the normal operation of said aircraft), fear, interference with sleep and communication and any and all other effects that may be alleged to be incident to or caused by the operation of aircraft over or in the vicinity of Grantors' property or in landing at or taking off from, or operating at or on said (full name of airport); and Grantors do hereby fully waive, remise, and release any right or cause of action which they may now have or which they may have in the future against Grantee, its successor and assigns, due to such noise vibrations, fumes, dust, fuel particles and all other effects that may be caused or may have been caused by the operation of aircraft landing at, or taking off from, or operating at or on said (full name of airport).

As used herein, the term "aircraft" shall mean any and all types of aircraft, whether now in existence or thereafter manufactured and developed, to include, but not limited to, jet aircraft, propeller driven aircraft, civil aircraft, military aircraft, commercial aircraft, helicopters and all types of aircraft or vehicles now in existence or hereafter developed, regardless of existing or future noise levels, for the purpose of transporting persons or property through the air, by whomsoever owned or operated.

The easement and right-of-way hereby granted includes the continuing right in the grantee to prevent the erection or growth upon Grantors' property of any building, structure, tree, or other object,

- extending into the air space above the aforesaid imaginary plane, (OR USE FOLLOWING)
- Extending into the air space above the said Mean Sea Level of (i.e., 150) feet, (OR USE FOLLOWING)
- Extending into the air space above the surface of Grantors' property;

and to remove from said air space, or at the sole option of the Grantee, as an alternative, to mark and light as obstructions to air navigation, any such building, structure, tree or other objects now upon, or which in the future may be upon Grantors' property, together with the right of ingress to, egress from, and passage over Grantors' property for the above purpose.

TO HAVE AND TO HOLD said easement and right-of-way, and all rights appertaining thereto unto the Grantee, its successors and assigns, until said (full name of airport) shall be abandoned and shall cease to be used for public airport purposes.

AND for the consideration hereinabove set forth, the Grantors, for themselves, their heirs, administrators, executors, successors, and assigns, do hereby agree that for and during the life of said easement and right-of-way, they will not hereafter erect, permit the erection or growth of, or permit or suffer to remain upon Grantors' property any building, structure, tree or other object extending into the aforesaid prohibited air space, and that they shall not hereafter use or permit or suffer the use of Grantors' property in such a manner as to create electrical interference with radio communication between any installation upon said airport and aircraft, or as to make it difficult for flyers to distinguish between airport lights and others, or to permit any use of the Grantors' land that causes a discharge of fumes, dust or smoke so as to impair visibility in the vicinity of the airport or as otherwise to endanger the landing, taking off or maneuvering of aircraft. Grantors furthermore waive all damages and claims for damages caused or alleged to be caused by or incidental to such activities.

It being understood and agreed that aforesaid covenants and agreements shall run with the land and shall be forever binding upon the heirs, administrators, executors, successors and assigns of the Grantor.

IN WITNESS WHEREOF ** the Grantors have hereunto set their hands and seals this ____ day of _____, 19__.

Signed, sealed and delivered in the presence of:

(SEAL)

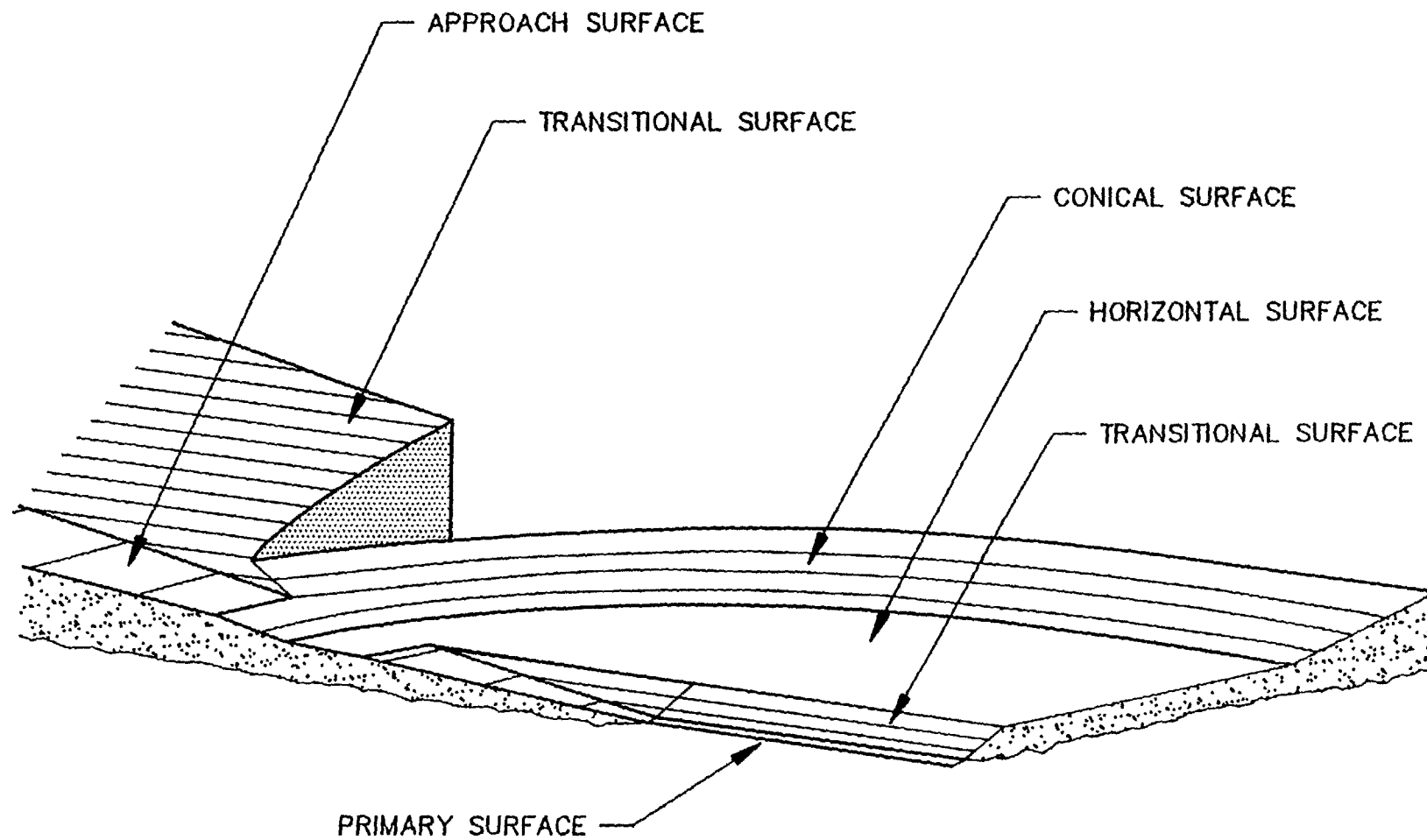
(SEAL)

(Notarial Acknowledgement)

- Alternative language depending upon desired coverage of easement.

- Local recordation and subordination practices must also be met. If subordination is necessary, in which case the mortgagee must joint in the agreement, the following language is suggested:

In consideration of the premises and to assure Grantee of the continued benefits accorded it under this easement, (name of mortgagee), owner and holder of a mortgage dated ____ and recorded ____ covering the premises above described, does hereby covenant and agree that said mortgage shall be subject to and subordinate to this easement and the recording of this easement shall have preference and precedence and shall be superior and prior in lien to said mortgage irrespective of the date of the making or recording of said mortgage instrument.



AIRPORT IMAGINARY SURFACES

BASED ON FAR 77 CRITERIA

